IN THE CLAIMS

Claim 1. (Previously Presented) A method of controlling the dissemination of routing information on a communication network without requiring flooding areas to be pre-defined on the communication network, the method comprising the steps of:

defining a maximum flooding radius for each link state advertisement to be flooded on the network, the maximum flooding radius enabling dissemination of the link state advertisement to be controlled on the network; and

preventing, by each node on the communication network, link state advertisements from flooding beyond their maximum flooding radius to control the dissemination of routing information by each node on the communication network without requiring flooding areas to be pre-defined on the communication network to thereby implement radius limited dissemination of routing information by each node on the communication network.

Claims 2-6. (Canceled)

Claim 7. (Currently Amended) A network topology, comprising:

a plurality of OSPF routers interconnected in a network ~~and belonging to an OSPF area~~, each of said plurality of OSPF routers being configured to define a maximum flooding radius for link state advertisements to be flooded on the network, the maximum flooding radius enabling dissemination of the link state advertisement to be controlled on the network; and

each of the plurality of OSPF routers being further configured to prevent link state advertisements from flooding beyond their maximum flooding radius to control the dissemination of routing information by each of the plurality of OSPF routers on the network without requiring flooding areas to be pre-defined on the network, to thereby implement radius limited dissemination of routing information by each of the plurality of OSFF routers on the network ~~selectively forward Link State Advertisements (LSAs) within the OSPF area by evaluating link state information contained in the LSAs to determine the relevance of the link state information on the network,~~ such that not every OSPF router within ~~the~~ an OSPF area receives every LSA.

Claim 8. (Original) The network topology of claim 7, wherein the plurality of OSPF routers are interconnected in an ad-hoc wireless mesh network.

Claim 9. (Original) The network topology of claim 7, wherein the network is configured such that LSAs are disseminated only a predefined distance within the OSPF area.

Claim 10. (Original) The network topology of claim 7, wherein a subset of the OSPF routers are focal nodes.

Claim 11. (Original) The network topology of claim 10, wherein the network is configured such that LSAs are disseminated only a predetermined distance within the OSPF area.

Claim 12. (Original) The network topology of claim 11, wherein the predetermined distance is selected such that each LSA is received by at least two focal nodes.

Claim 13. (Original) The network topology of claim 11, wherein nodes on the network other than focal nodes are configured to maintain a routing table containing information obtained from LSAs, said routing table containing information associated with at least two focal nodes.

Claim 14. (Original) The network topology of claim 10, wherein the focal nodes are area border routers to an OSPF backbone area.

Claim 15. (Original) The network topology of claim 14, wherein the focal nodes on the OSPF backbone area are configured to disseminate link state information for nodes in their local area, their local area being defined as that portion of the network from which the focal nodes receive LSAs.

Claim 16. (Currently Amended) A network node, comprising:

ports interconnected by a switch fabric to enable the network node to communicate on ~~the~~ a network; and

control logic configured to inspect a link state advertisement received from the ~~a~~ network, ascertain link state information from the link state advertisement, determine a relevance of the link state information; and selectively drop the link state advertisement if the link state information is not relevant;

the control logic being further configured to enable the network node to participate in defining a maximum flooding radius for each link state advertisement to be flooded on the network, the maximum flooding radius for a particular link state advertisement enabling dissemination of that particular link state advertisement to be controlled on the network; and

the control logic being still further configured to enable the node to prevent link state advertisements from flooding beyond their maximum flooding radius to control the dissemination of routing information by the node on the communication network without requiring flooding areas to be pre-defined on the communication network to thereby implement radius limited dissemination of routing information by the node and a plurality of similarly configured other nodes on the communication network.

Claim 17. (Canceled)

Claim 18. (Previously Presented) The network node of claim 16, wherein the relevance is a sum of link costs associated with the link state advertisement.

Claim 19. (Previously Presented) The network node of claim 16, further comprising a routing table, and wherein the control logic is further configured to update information in the routing table from the link state information contained in the link state advertisement if the link state information is determined to be relevant.

Claim 20. (Previously Presented) The network node of claim 16, further comprising a routing table, and wherein the control logic is further configured to update information in the routing table from the link state information contained in the link state advertisement, and wherein the control logic is configured to selectively drop the link state advertisement if the link state information contained in the link state advertisement is not likely to be relevant to another node on the network.